**WHAT IS CLAIMED IS:**

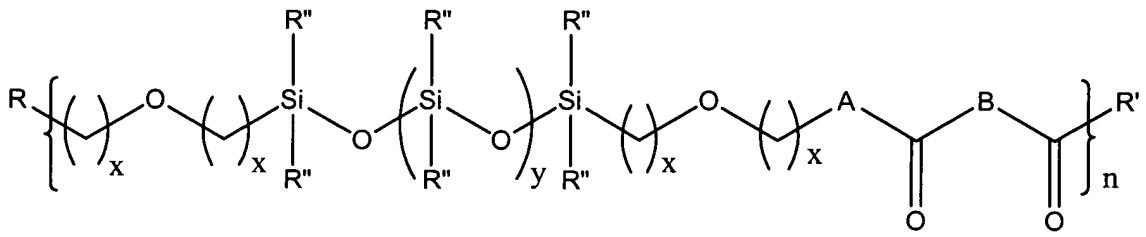
1. A method of synthesizing a polyorganosilicone polymer or an alkylene glycol-based polyester polymer, the method comprising:

mixing linear or cyclic monomers, oligomers, macromers, or a combination thereof to form a monomer mixture, wherein the monomer mixture comprises monomers that can produce a polyorganosilicone or alkylene glycol-based polyester;

adding a lipase, esterase, or protease to the monomer mixture to form a reaction mixture; and

reacting the reaction mixture for a time and under polymerizing conditions suitable to obtain a polyorganosilicone polymer or an alkylene glycol-based polyester polymer.

2. The method of claim 1, wherein the polymer is of the formula:




in which

each of R, R', and R", independently, is hydrogen, hydroxy, amino, alkoxy, aryl, or aryloxy;

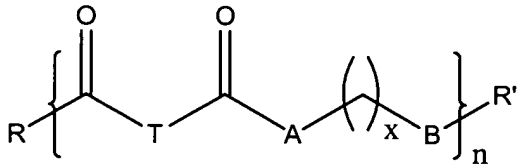
each x, independently, is an integral of 1 to 10;

y is an integral of 1 to 1,000;

n is an integral of 1 to 10,000; and

each of A and B, independently, is alkyl, aryl, or alkoxy.

3. The method of claim 1, wherein the polymer is of the formula:




in which

each of R and R', independently, is hydrogen, hydroxy, amino, alkoxy, aryl, or aryloxy;

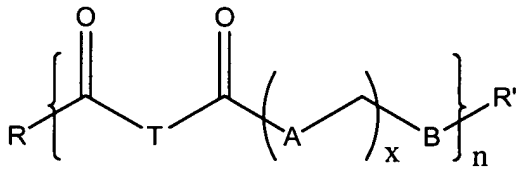
each x, independently, is an integral of 1 to 10;

n is an integral of 1 to 10,000;

each T, independently, is alkyl or aryl; and

each of A and B, independently, is oxygen, sulfur, or amino.

4. The method of claim 1, wherein the polymer is of the formula:




in which

each of R and R', independently, is hydrogen, hydroxy, amino, alkoxy, aryl, or aryloxy;

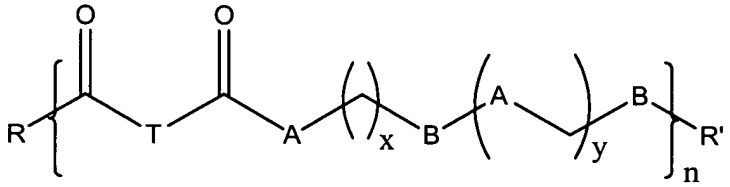
each x, independently, is an integral of 1 to 10;

n is an integral of 1 to 10,000;

each T, independently, is alkyl or aryl; and

each of A and B, independently, is oxygen, sulfur, or amino.

5. The method of claim 1, wherein the polymer is of the formula:




in which

each of R and R', independently, is hydrogen, hydroxy, amino, alkoxy, aryl, or aryloxy;

each of x and y, independently, is an integral of 1 to 10;

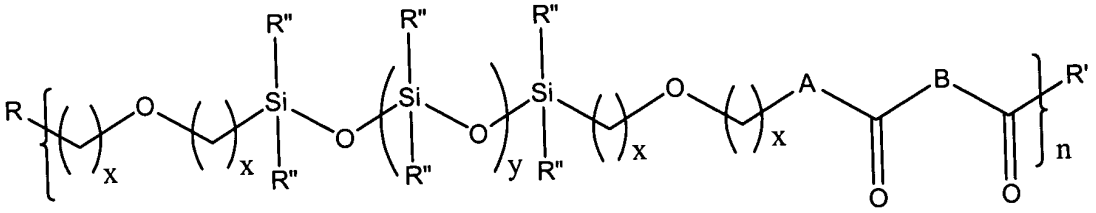
n is an integral of 1 to 10,000;

each T, independently, is alkyl or aryl; and

each of A and B, independently, is oxygen, sulfur, amino, alkyl, or aryl; and at least one B is oxygen, sulfur, or amino.

6. The method of claim 1, wherein the polymer is a multi-component polyester in which at least three components are aliphatic, aromatic or cyclic monomers, or a combination thereof.

7. A polyorganosilicone of the formula:




wherein

each of R, R', and R", independently, is hydrogen, hydroxy, amino, alkoxy, aryl, or aryloxy;

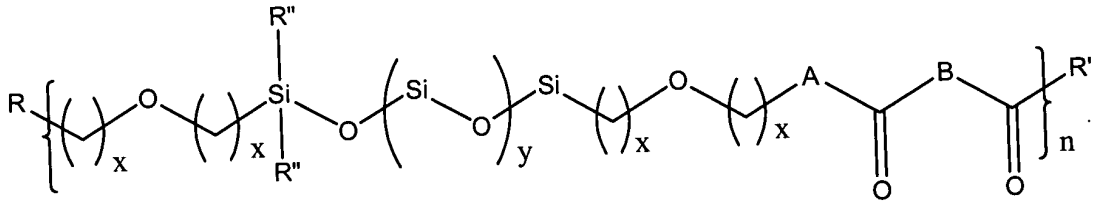
each x, independently, is an integral of 1 to 10;

y is an integral of 1 to 1,000;

n is an integral of 1 to 10,000; and

each of A and B, independently, is alkyl, aryl, or alkoxy.

8. A composition or structure comprising a polyorganosilicone of the formula:




wherein

each of R, R', and R", independently, is hydrogen, hydroxy, amino, alkoxy, aryl, or aryloxy;

each x, independently, is an integral of 1 to 10;

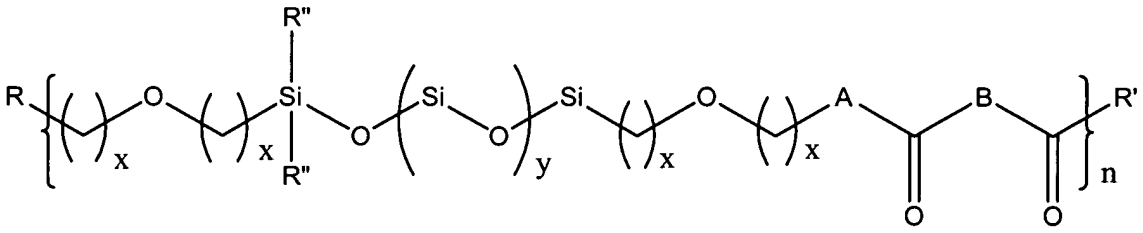
y is an integral of 1 to 1,000;

n is an integral of 1 to 10,000; and

each of A and B, independently, is alkyl, aryl, or alkoxy.

9. The composition of claim 8, comprising a fire retardant.

10. A method of preventing fire, the method comprising using as a fire-retardant a polymer having the following formula:




wherein

each of R, R', and R", independently, is hydrogen, hydroxy, amino, alkoxy, aryl, or aryloxy;

each x, independently, is an integral of 1 to 10;

y is an integral of 1 to 1,000;

n is an integral of 1 to 10,000; and

each of A and B, independently, is alkyl, aryl, or alkoxy.

11. A method of incorporating a third monomer in a preformed polymer, the method comprising mixing the third monomer with the preformed polymer, adding a lipase to the monomer-polymer mixture, and polymerizing the reaction mixture, wherein the third monomer is a linear or cyclic alkyl monomer or an aryl monomer.